PATENT ABSTRACTS OF JAPAN

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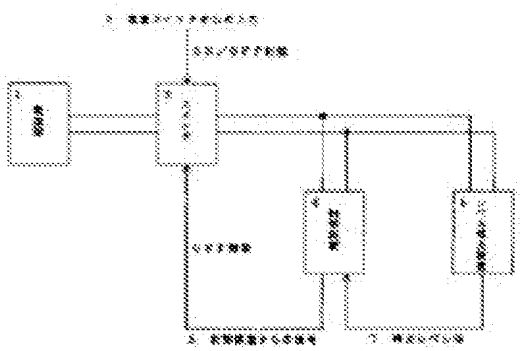
(54) MOBILE TELEPHONE SET WITH AUTOMATIC POWER-OFF FUNCTION

(57)Abstract:
PURPOSE: To attain long service life of a battery of the mobile telephone set by providing a function interrupting power of a power supply automatically when the mobile telephone set comes at the outside of a zone of the service network.
CONSTITUTION: The mobile telephone set is provided with a power supply section 1, a controller 4 controlling the mobile telephone set, a switch 3 turned on/off by an input 2 from a power switch or a signal from the controller 4, and a reception level detector 6. When a switch of the power supply section 1 is closed to start the mobile telephone set, the switch 3 is closed through the reception of the signal of the input 2 from the power switch and power is supplied to the controller 4 and the reception level detector 6. The reception level detector 6 detects the reception level to give a signal of a reception level 7 to the controller 4. When a predetermined level of the reception level is not obtained, the controller 4 discriminates it that the mobile telephone set comes at the outside of the service zone and sends a signal 5 to the switch 3, which is turned off.



CLAIMS

[Claim(s)]
[Claim 1]A mobile phone machine comprising:
A power supply section.
A control device which controls a mobile phone machine.
A switch which can be turned on and off by a signal from an input or a control device from a power supply section switch.
A means by which it has a receiving level sensing device, and said switch carries out OFF control of the power supply of a mobile phone machine automatically when a receiving level is not obtained beyond as for constant value.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application]This invention relates to the mobile phone machine especially provided with the function which turns off a power supply automatically by certain conditions about a mobile phone machine.
[0002]
[Description of the Prior Art]The mobile phone machine generally used now is constituted by the power supply section constituted by the cell with which the inside was equipped, and which can be charged, the switch which performs ON/OFF control by the input from an electric power switch, the control device, and the receiving level sensing device.
[0003]And if the signal input more than a certain fixed receiving level occurs by [which await and maintains at the state] having made the power supply section drive with a low in order for a mobile phone machine to be in a service within the circle and to be in a call possible state, it will be in a call possible state.
[0004]
[Problem to be solved by the invention]In the mobile phone machine of said description, it is a case where a mobile phone machine is in within the circle [which can obtain service], and in order to maintain a call possible state, a mobile phone machine awaits and the power supply drive with a state level is needed. However, by the cell which is built in a mobile phone machine and used well and which can be charged, time possible although [which is depended on one charge] it awaits and a state is held is about continuation 7-9 hour at most now.
[0005]Then, although research and development in technology, such as reinforcement of the cell itself and intermittent reception which awaits and suppresses consumption of the cell at the time, is done, the actual condition is that take the portability of a mobile phone machine, and cost performance into consideration, and the satisfaction **** thing is not obtained.
[0006]However, when the mobile phone machine is held in the area which an electric wave does not reach when it is in within the circle [which cannot obtain service] namely, there is no necessity of making the power supply for maintaining a mobile phone machine at the waiting receptacle level for a telephone call driving. such [conventionally] a case -- a user -- the person himself/herself had prevented consumption of an unnecessary cell by making the power supply of a power supply section turn off with hand control. however, a user -- the actual condition is always judging whether the person himself/herself being service within the circle, and the work which turns off the cell being sometimes easy to forget, and driving the unnecessary power supply after all.

[0007]Then, an object of this invention is to attain reinforcement of the cell of a mobile phone machine by having a function which carries out power-off of the power supply automatically, when a mobile phone machine comes out to the outside of the circle of a service network.
[0008]
[Means for solving problem]The switch which can be turned on and off by the signal from this invention, a power supply section, the control device that controls a mobile phone machine, and the input or control device from a power supply section switch, It had the receiving level sensing device, and said switch was provided with the means which carries out OFF control of the power supply of a mobile phone machine automatically when a receiving level was not obtained beyond as for constant value.
[0009]
[Function]In the switch connected in the mobile phone machine of this invention between the power supply section, the control device, and the receiving level sensing device, Said purpose is attained by it not only carrying out ON/OFF control by the input from the outside, but having made it possible to carry out OFF control by signal feedback from a control device.
[0010]That is, at the time of OFF of a power supply, a power supply is turned ON and a power supply is supplied to a control device by the input from an electric power switch. Then, it confirms whether to be a service within the circle or the outside of the circle, when it is the outside of the circle, a signal is sent to a switch from a control device, and a power supply is turned OFF.
[0011]
[Working example]One working example for realizing this invention is described. Drawing 1 is a schematic view of the composition of the mobile phone machine by this invention. As for a control device and 5, in drawing 1, the input from an electric power switch and 3 are [a receiving level sensing device and 7] receiving level values the signal to the switch from a control device, and 6 a switch and 4 the power supply section constituted by the cell which 1 can charge, and 2 .
[0012]In order to start a mobile phone machine, when a switch of the power supply section 1 is turned ON, in response to a signal of the input 2 from an electric power switch, the switch 3 is set to ON and a power supply will be supplied to the control device 4 and the receiving level sensing device 6.
[0013]The receiving level sensing device 6 detects a receiving level, and passes a signal of the receiving level value 7 to the control device 4. In the control device 4, when a receiving level is not obtained beyond as for constant value, it judges that a mobile phone machine is the service outside of the circle, the signal 5 from a control device is sent to the switch 3, and the switch 3 is turned OFF.
[0014]Drawing 2 is a flow chart for explaining a function of a mobile phone machine concerning this example. below, operation concerning each step (the following and S1 -- it abbreviates to ...) S1 - S9 is explained in order. First, the power supply 1 is made into an ON state with hand control, an input signal from an electric power switch awaits, and it goes into a state. Here, a power supply is supplied to the control device 4 and the receiving level sensing device 6 by receiving a signal of the input 2 from an electric power switch (S1). The receiving level sensing device 6 detects a receiving level of said input signal, and passes receiving level value 7 signal to the control device 4. When it judges whether a receipt of said signal is the service outside of the circle with a receiving level value (S2) and a receiving level is obtained beyond as for constant value (i.e., when it is not the outside of the circle), usual awaits the control device 4 and it operates processing (S3). When beyond constant value is not obtained (i.e., when it is the outside of the circle), a timer is started and it waits for (S4) and a fixed time keystroke (S5).
[0015]If a keystroke is in fixed time, will stop a timer (S7), and will perform processing (S8) to the keystroke of abbreviation dial registration etc., but. If there is no keystroke, the signal 5 from a control device will be fed back to the switch 3, and the processing OFF of timeout, i.e., the power of the power supply 1, (S9) will be performed automatically.
[0016]
[Effect of the Invention]Since a power supply is automatically turned off when a mobile phone machine checks that it is the outside of the circle and is in the service outside of the circle, it becomes possible to prevent consumption of the unnecessary cell by failure of a switch to cut.
